

## ABSTRACT

An antenna optimum design method according to this invention includes the steps of generating blocks by dividing  
5 a metal patch on an antenna element plane vertically and horizontally; setting reference point blocks in alternate blocks and assigning chromosomes to the reference point blocks; determining ways to arrange metal patches in blocks contiguous on one side to the reference point blocks, based on the  
10 chromosomes assigned to the reference point blocks; and searching for an optimum chromosomes to be assigned to the reference point blocks by a genetic algorithm to optimize antenna characteristics.